



Quick Overview of Research

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Aerial Robotics Today

Urban Air Mobility (UAM)

Electric
Autonomous
Passenger
Air Vehicles

Why
autonomous? =>
Too many pilots
required,
payload, and
density of traffic.



Drone Delivery

Big challenge:
Beyond visual
line-of-sight and
integration with
other traffic.

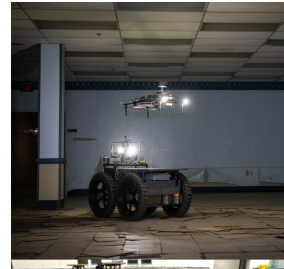
Detection,
reacting to other
traffic, naturally
fitting into
existing traffic
flow,
incorporating
wind into
decision making.



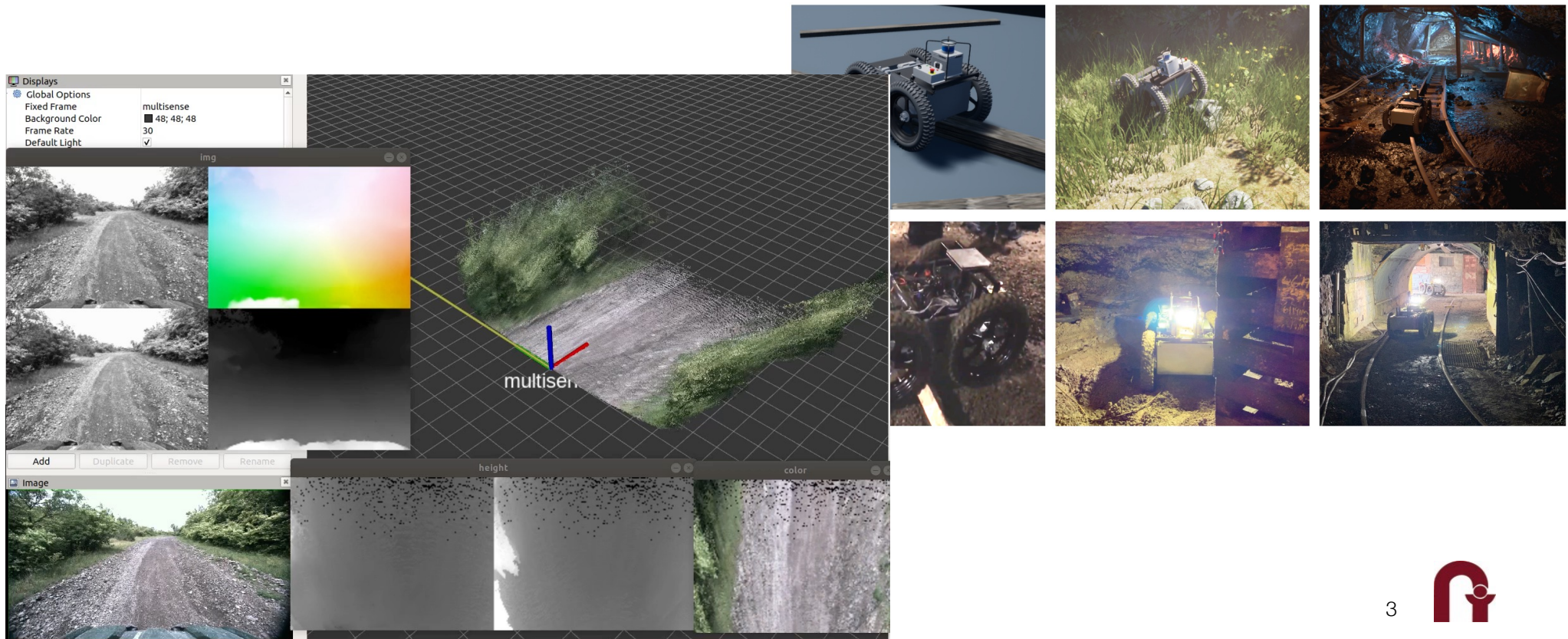
Search & Rescue, Inspection, and Filming

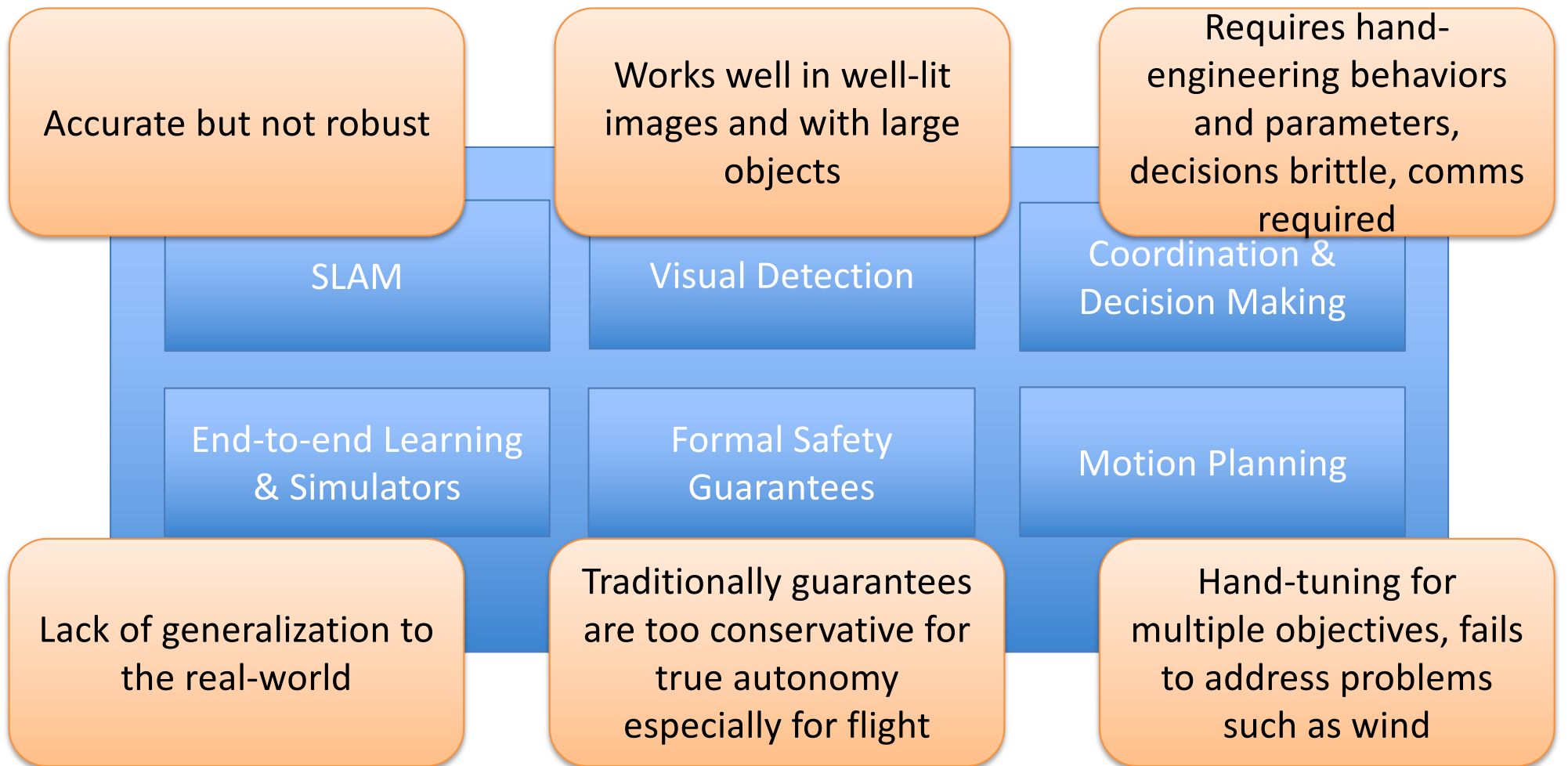
Challenging
flight conditions,
low-light, dust,
fog.

Coordination
between
different types
of robots, flight
close to
obstacles.

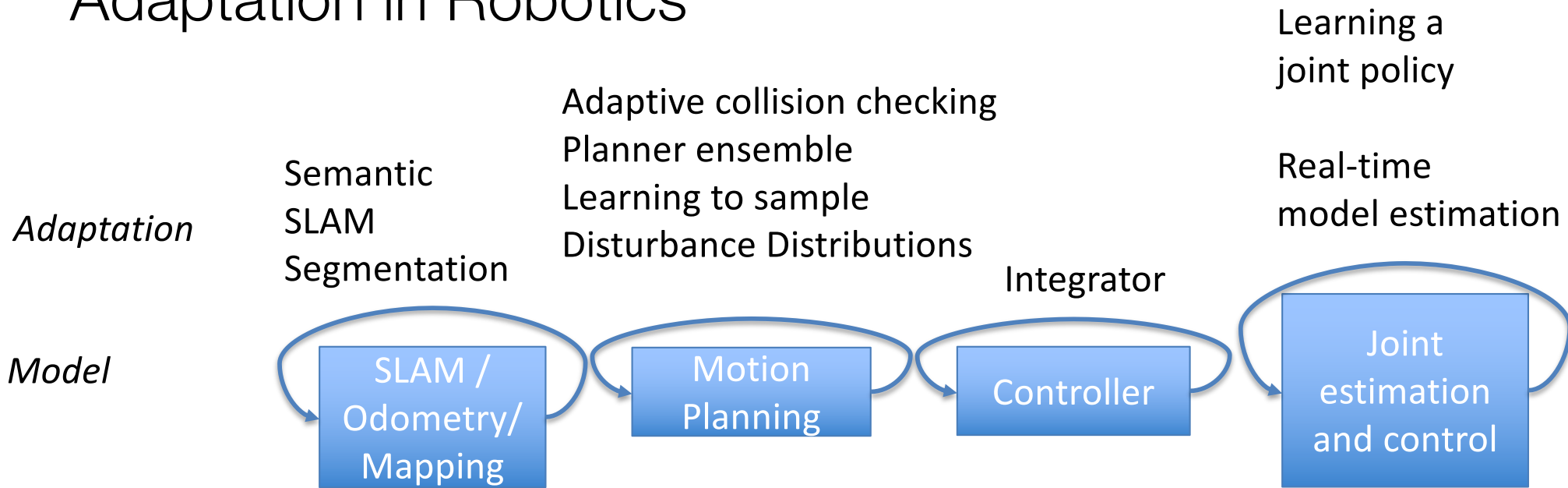


+ Offroad Driving

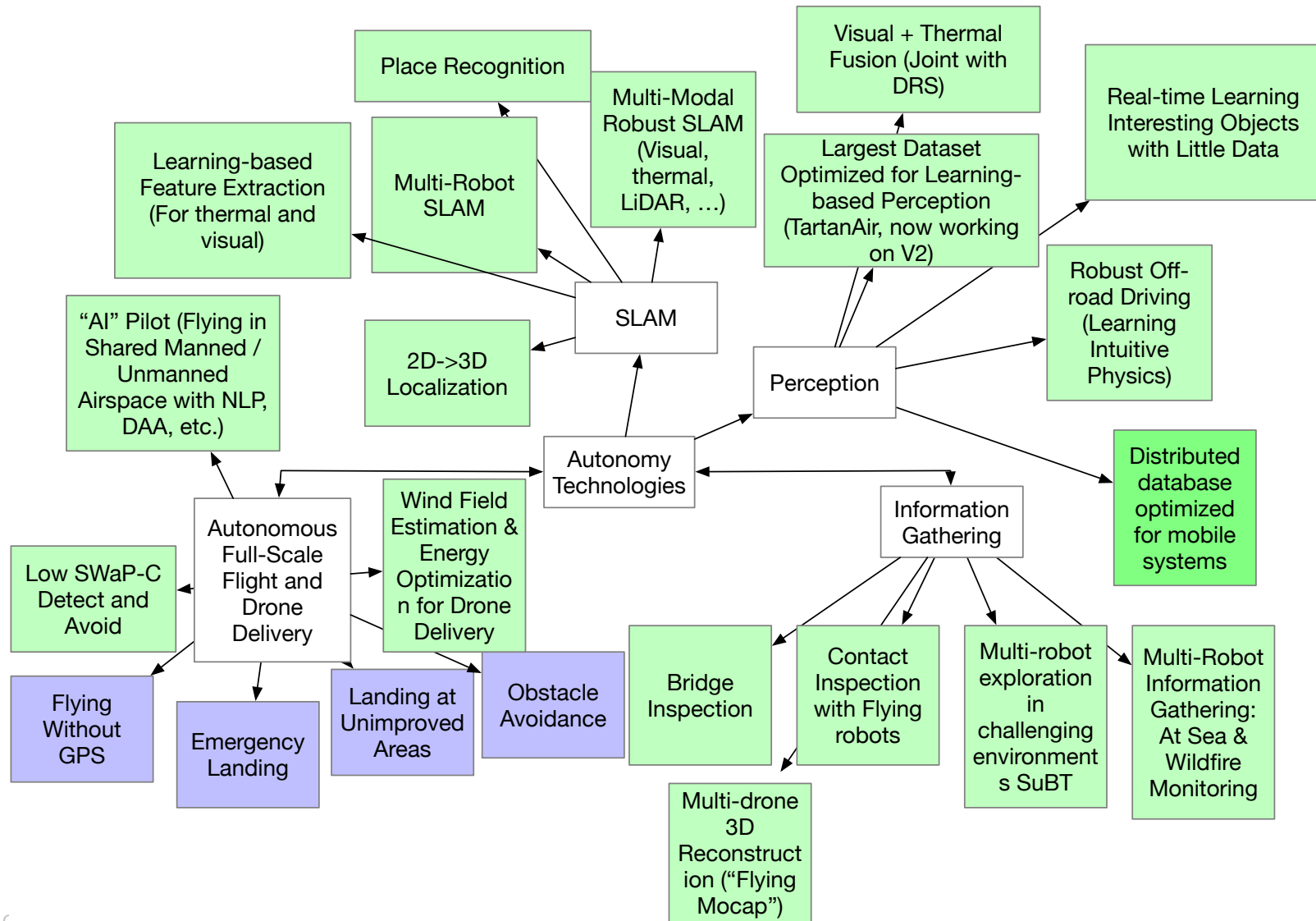




Examples for Increasing the Amount of Adaptation in Robotics

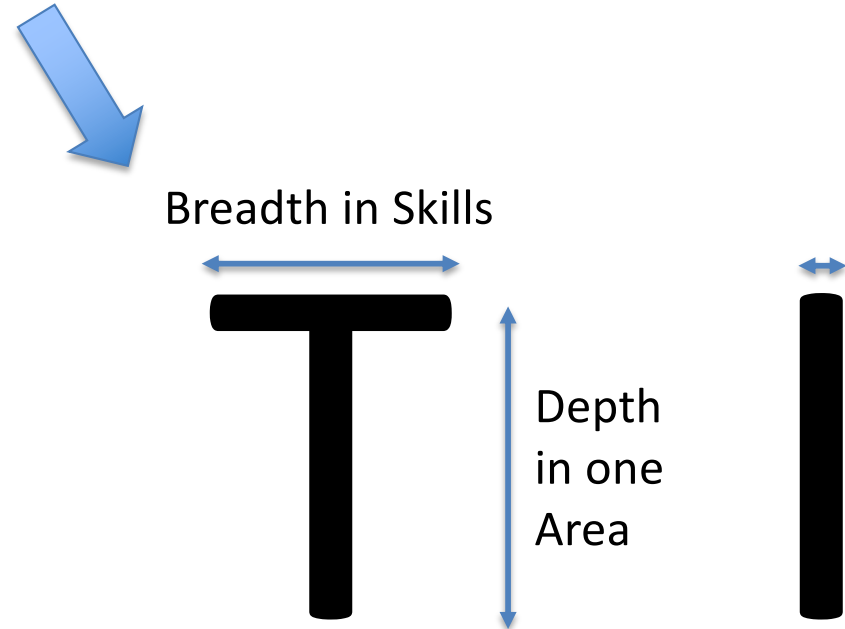






What Are We Looking for in a Student?

- Not afraid to solve big problems
- Not afraid to get your hands dirty
- Expected to broaden and deepen horizon
- Enjoys solving “dirty” problems and thinking about how to make them “clean”



Meet & Greet Sessions

- Still organizing session. Please sign up via Roboguide advisor match. This is the google form:

<https://forms.gle/JXND3VWYwfgavTTX6>

- Will contact people that sign up with teams.
- Expect time to be Tuesday or Wednesday next week.
- Plan on 5min. Getting to know each other, questions, etc.

